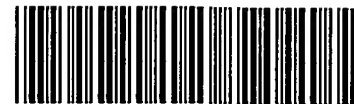


RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/563,726
Source: J.FWP
Date Processed by STIC: 07/31/2006

ENTERED



IFWP

RAW SEQUENCE LISTING

DATE: 07/31/2006

PATENT APPLICATION: US/10/563,726

TIME: 14:24:12

Input Set : A:\PTO.KD.txt

Output Set: N:\CRF4\07312006\J563726.raw

3 <110> APPLICANT: THE GENERAL HOSPITAL CORPORATION

5 <120> TITLE OF INVENTION: FUGETACTIC PROTEINS, COMPOSITIONS AND METHODS OF

USE

7 <130> FILE REFERENCE: (51588)62063.WO

C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/563,726

C--> 10 <141> CURRENT FILING DATE: 2006-01-06

12 <150> PRIOR APPLICATION NUMBER: 60/485,550

13 <151> PRIOR FILING DATE: 2003-07-07

15 <160> NUMBER OF SEQ ID NOS: 121

17 <170> SOFTWARE: PatentIn Ver. 3.3

19 <210> SEQ ID NO: 1

20 <211> LENGTH: 724

21 <212> TYPE: PRT

22 <213> ORGANISM: Mus sp.

24 <400> SEQUENCE: 1

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26 1 5 10 15

28 Phe Gln Ala Glu Ile Ala Gln Leu Met Ser Leu Ile Ile Asn Thr Phe

29 20 25 30

31 Tyr Ser Asn Lys Glu Ile Phe Leu Arg Glu Leu Ile Ser Asn Ala Ser

32 35 40 45

34 Asp Ala Leu Asp Lys Ile Arg Tyr Glu Ser Leu Thr Asp Pro Ser Lys

35 50 55 60

37 Leu Asp Ser Gly Lys Glu Leu Lys Ile Asp Ile Ile Pro Asn Pro Gln

38 65 70 75 80

40 Glu Arg Thr Leu Thr Leu Val Asp Thr Gly Ile Gly Met Thr Lys Ala

41 85 90 95

43 Asp Leu Ile Asn Asn Leu Gly Thr Ile Ala Lys Ser Gly Thr Lys Ala

44 100 105 110

46 Phe Met Glu Ala Leu Gln Ala Gly Ala Asp Ile Ser Met Ile Gly Gln

47 115 120 125

49 Phe Gly Val Gly Phe Tyr Ser Ala Tyr Leu Val Ala Glu Lys Val Val

50 130 135 140

52 Val Ile Thr Lys His Asn Asp Asp Glu Gln Tyr Ala Trp Glu Ser Ser

53 145 150 155 160

55 Ala Gly Gly Ser Phe Thr Val Arg Ala Asp His Gly Glu Pro Ile Gly

56 165 170 175

58 Arg Gly Thr Lys Val Ile Leu His Leu Lys Glu Asp Gln Thr Glu Tyr

59 180 185 190

61 Leu Glu Glu Arg Arg Val Lys Glu Val Val Lys Lys His Ser Gln Phe

62 195 200 205

64 Ile Gly Tyr Pro Ile Thr Leu Tyr Leu Glu Lys Glu Arg Glu Lys Glu

65 210 215 220

67 Ile Ser Asp Asp Glu Ala Glu Glu Glu Lys Gly Glu Lys Glu Glu Glu

Cpg-6)

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/563,726

DATE: 07/31/2006

TIME: 14:24:12

Input Set : A:\PTO.KD.txt

Output Set: N:\CRF4\07312006\J563726.raw

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70 Asp Lys Asp Asp Glu Lys Pro Lys Ile Glu Asp Val Gly Ser Asp
71          245          250          255
73 Glu Glu Asp Asp Ser Gly Lys Asp Lys Lys Lys Thr Lys Lys Ile
74          260          265          270
76 Lys Glu Lys Tyr Ile Asp Gln Glu Leu Asn Lys Thr Lys Pro Ile
77          275          280          285
79 Trp Thr Arg Asn Pro Asp Asp Ile Thr Gln Glu Glu Tyr Gly Glu Phe
80          290          295          300
82 Tyr Lys Ser Leu Thr Asn Asp Trp Glu Asp His Leu Ala Val Lys His
83 305          310          315          320
85 Phe Ser Val Glu Gly Gln Leu Glu Phe Arg Ala Leu Leu Phe Ile Pro
86          325          330          335
88 Arg Arg Ala Pro Phe Asp Leu Phe Glu Asn Lys Lys Lys Lys Asn Asn
89          340          345          350
91 Ile Lys Leu Tyr Val Arg Arg Val Phe Ile Met Asp Ser Cys Asp Glu
92          355          360          365
94 Leu Ile Pro Glu Tyr Leu Asn Phe Ile Arg Gly Val Val Asp Ser Glu
95          370          375          380
97 Asp Leu Pro Leu Asn Ile Ser Arg Glu Met Leu Gln Gln Ser Lys Ile
98 385          390          395          400
100 Leu Lys Val Ile Arg Lys Asn Ile Val Lys Lys Cys Leu Glu Leu Phe
101          405          410          415
103 Ser Glu Leu Ala Glu Asp Lys Glu Asn Tyr Lys Lys Phe Tyr Glu Ala
104          420          425          430
106 Phe Ser Lys Asn Leu Lys Leu Gly Ile His Glu Asp Ser Thr Asn Arg
107          435          440          445
109 Arg Arg Leu Ser Glu Leu Leu Arg Tyr His Thr Ser Gln Ser Gly Asp
110          450          455          460
112 Glu Met Thr Ser Leu Ser Glu Tyr Val Ser Arg Met Lys Glu Thr Gln
113 465          470          475          480
115 Lys Ser Ile Tyr Tyr Ile Thr Gly Glu Ser Lys Glu Gln Val Ala Asn
116          485          490          495
118 Ser Ala Phe Val Glu Arg Val Arg Lys Arg Gly Phe Glu Val Val Tyr
119          500          505          510
121 Met Thr Glu Pro Ile Asp Glu Tyr Cys Val Gln Gln Leu Lys Glu Phe
122          515          520          525
124 Asp Gly Lys Ser Leu Val Ser Val Thr Lys Glu Gly Leu Glu Leu Pro
125          530          535          540
127 Glu Asp Glu Glu Glu Lys Lys Lys Met Glu Glu Ser Lys Ala Lys Phe
128 545          550          555          560
130 Glu Asn Leu Cys Lys Leu Met Lys Glu Ile Leu Asp Lys Lys Val Glu
131          565          570          575
133 Lys Val Thr Ile Ser Asn Arg Leu Val Ser Ser Pro Cys Cys Ile Val
134          580          585          590
136 Thr Ser Thr Tyr Gly Trp Thr Ala Asn Met Glu Arg Ile Met Lys Ala
137          595          600          605
139 Gln Ala Leu Arg Asp Asn Ser Thr Met Gly Tyr Met Met Ala Lys Lys
140          610          615          620

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RAW SEQUENCE LISTING

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DATE: 07/31/2006

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Input Set : A:\PTO.KD.txt

Output Set: N:\CRF4\07312006\J563726.raw

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142 His Leu Glu Ile Asn Pro Asp His Pro Ile Val Glu Thr Leu Arg Gln
143 625                      630                      635                      640
145 Lys Ala Glu Ala Asp Lys Asn Asp Lys Ala Val Lys Asp Leu Val Val
146                      645                      650                      655
148 Leu Leu Phe Glu Thr Ala Leu Leu Ser Ser Gly Phe Ser Leu Glu Asp
149                      660                      665                      670
151 Pro Gln Thr His Ser Asn Arg Ile Tyr Arg Met Ile Lys Leu Gly Leu
152                      675                      680                      685
154 Gly Ile Asp Glu Asp Glu Val Ala Ala Glu Glu Pro Asn Ala Ala Val
155                      690                      695                      700
157 Pro Asp Glu Ile Pro Pro Leu Glu Gly Asp Glu Asp Ala Ser Arg Met
158 705                      710                      715                      720
160 Glu Glu Val Asp
164 <210> SEQ ID NO: 2
165 <211> LENGTH: 724
166 <212> TYPE: PRT
167 <213> ORGANISM: Homo sapiens
169 <400> SEQUENCE: 2
170 Met Pro Glu Glu Val His His Gly Glu Glu Glu Val Glu Thr Phe Ala
171 1 5 10 15
173 Phe Gln Ala Glu Ile Ala Gln Leu Met Ser Leu Ile Ile Asn Thr Phe
174 20 25 30
176 Tyr Ser Asn Lys Glu Ile Phe Leu Arg Glu Leu Ile Ser Asn Ala Ser
177 35 40 45
179 Asp Ala Leu Asp Lys Ile Arg Tyr Glu Ser Leu Thr Asp Pro Ser Lys
180 50 55 60
182 Leu Asp Ser Gly Lys Glu Leu Lys Ile Asp Ile Ile Pro Asn Pro Gln
183 65 70 75 80
185 Glu Arg Thr Leu Thr Leu Val Asp Thr Gly Ile Gly Met Thr Lys Ala
186 85 90 95
188 Asp Leu Ile Asn Asn Leu Gly Thr Ile Ala Lys Ser Gly Thr Lys Ala
189 100 105 110
191 Phe Met Glu Ala Leu Gln Ala Gly Ala Asp Ile Ser Met Ile Gly Gln
192 115 120 125
194 Phe Gly Val Gly Phe Tyr Ser Ala Tyr Leu Val Ala Glu Lys Val Val
195 130 135 140
197 Val Ile Thr Lys His Asn Asp Asp Glu Gln Tyr Ala Trp Glu Ser Ser
198 145 150 155 160
200 Ala Gly Gly Ser Phe Thr Val Arg Ala Asp His Gly Glu Pro Ile Gly
201 165 170 175
203 Arg Gly Thr Lys Val Ile Leu His Leu Lys Glu Asp Gln Thr Glu Tyr
204 180 185 190
206 Leu Glu Glu Arg Arg Val Lys Glu Val Val Lys Lys His Ser Gln Phe
207 195 200 205
209 Ile Gly Tyr Pro Ile Thr Leu Tyr Leu Glu Lys Glu Arg Glu Lys Glu
210 210 215 220
212 Ile Ser Asp Asp Glu Ala Glu Glu Glu Lys Gly Glu Lys Glu Glu Glu
213 225 230 235 240
215 Asp Lys Asp Asp Glu Glu Lys Pro Lys Ile Glu Asp Val Gly Ser Asp

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/563,726

DATE: 07/31/2006

TIME: 14:24:12

Input Set : A:\PTO.KD.txt

Output Set: N:\CRF4\07312006\J563726.raw

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216          245          250          255
218 Glu Glu Asp Asp Ser Gly Lys Asp Lys Lys Lys Thr Lys Lys Ile
219          260          265          270
221 Lys Glu Lys Tyr Ile Asp Gln Glu Leu Asn Lys Thr Lys Pro Ile
222          275          280          285
224 Trp Thr Arg Asn Pro Asp Asp Ile Thr Gln Glu Glu Tyr Gly Glu Phe
225          290          295          300
227 Tyr Lys Ser Leu Thr Asn Asp Trp Glu Asp His Leu Ala Val Lys His
228 305          310          315          320
230 Phe Ser Val Glu Gly Gln Leu Glu Phe Arg Ala Leu Leu Phe Ile Pro
231          325          330          335
233 Arg Arg Ala Pro Phe Asp Leu Phe Glu Asn Lys Lys Lys Lys Asn Asn
234          340          345          350
236 Ile Lys Leu Tyr Val Arg Arg Val Phe Ile Met Asp Ser Cys Asp Glu
237          355          360          365
239 Leu Ile Pro Glu Tyr Leu Asn Phe Ile Arg Gly Val Val Asp Ser Glu
240          370          375          380
242 Asp Leu Pro Leu Asn Ile Ser Arg Glu Met Leu Gln Gln Ser Lys Ile
243 385          390          395          400
245 Leu Lys Val Ile Arg Lys Asn Ile Val Lys Lys Cys Leu Glu Leu Phe
246          405          410          415
248 Ser Glu Leu Ala Glu Asp Lys Glu Asn Tyr Lys Lys Phe Tyr Glu Ala
249          420          425          430
251 Phe Ser Lys Asn Leu Lys Leu Gly Ile His Glu Asp Ser Thr Asn Arg
252          435          440          445
254 Arg Arg Leu Ser Glu Leu Leu Arg Tyr His Thr Ser Gln Ser Gly Asp
255          450          455          460
257 Glu Met Thr Ser Leu Ser Glu Tyr Val Ser Arg Met Lys Glu Thr Gln
258 465          470          475          480
260 Lys Ser Ile Tyr Tyr Ile Thr Gly Glu Ser Lys Glu Gln Val Ala Asn
261          485          490          495
263 Ser Ala Phe Val Glu Arg Val Arg Lys Arg Gly Phe Glu Val Val Tyr
264          500          505          510
266 Met Thr Glu Pro Ile Asp Glu Tyr Cys Val Gln Gln Leu Lys Glu Phe
267          515          520          525
269 Asp Gly Lys Ser Leu Val Ser Val Thr Lys Glu Gly Leu Glu Leu Pro
270          530          535          540
272 Glu Asp Glu Glu Glu Lys Lys Met Glu Glu Ser Lys Ala Lys Phe
273 545          550          555          560
275 Glu Asn Leu Cys Lys Leu Met Lys Glu Ile Leu Asp Lys Lys Val Glu
276          565          570          575
278 Lys Val Thr Ile Ser Asn Arg Leu Val Ser Ser Pro Cys Cys Ile Val
279          580          585          590
281 Thr Ser Thr Tyr Gly Trp Thr Ala Asn Met Glu Arg Ile Met Lys Ala
282          595          600          605
284 Gln Ala Leu Arg Asp Asn Ser Thr Met Gly Tyr Met Met Ala Lys Lys
285          610          615          620
287 His Leu Glu Ile Asn Pro Asp His Pro Ile Val Glu Thr Leu Arg Gln
288 625          630          635          640

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PATENT APPLICATION: US/10/563,726

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Input Set : A:\PTO.KD.txt

Output Set: N:\CRF4\07312006\J563726.raw

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290 Lys Ala Glu Ala Asp Lys Asn Asp Lys Ala Val Lys Asp Leu Val Val
291          645          650          655
293 Leu Leu Phe Glu Thr Ala Leu Leu Ser Ser Gly Phe Ser Leu Glu Asp
294          660          665          670
296 Pro Gln Thr His Ser Asn Arg Ile Tyr Arg Met Ile Lys Leu Gly Leu
297          675          680          685
299 Gly Ile Asp Glu Asp Glu Val Ala Ala Glu Glu Pro Asn Ala Ala Val
300          690          695          700
302 Pro Asp Glu Ile Pro Pro Leu Glu Gly Asp Glu Asp Ala Ser Arg Met
303 705          710          715          720
305 Glu Glu Val Asp
309 <210> SEQ ID NO: 3
310 <211> LENGTH: 732
311 <212> TYPE: PRT
312 <213> ORGANISM: Homo sapiens
314 <400> SEQUENCE: 3
315 Met Pro Glu Glu Thr Gln Thr Gln Asp Gln Pro Met Glu Glu Glu Glu
316 1          5          10          15
318 Val Glu Thr Phe Ala Phe Gln Ala Glu Ile Ala Gln Leu Met Ser Leu
319          20          25          30
321 Ile Ile Asn Thr Phe Tyr Ser Asn Lys Glu Ile Phe Leu Arg Glu Leu
322          35          40          45
324 Ile Ser Asn Ser Ser Asp Ala Leu Asp Lys Ile Arg Tyr Glu Ser Leu
325          50          55          60
327 Thr Asp Pro Ser Lys Leu Asp Ser Gly Lys Glu Leu His Ile Asn Leu
328 65          70          75          80
330 Ile Pro Asn Lys Gln Asp Arg Thr Leu Thr Ile Val Asp Thr Gly Ile
331          85          90          95
333 Gly Met Thr Lys Ala Asp Leu Ile Asn Asn Leu Gly Thr Ile Ala Lys
334          100          105          110
336 Ser Gly Thr Lys Ala Phe Met Glu Ala Leu Gln Ala Gly Ala Asp Ile
337          115          120          125
339 Ser Met Ile Gly Gln Phe Gly Val Gly Phe Tyr Ser Ala Tyr Leu Val
340          130          135          140
342 Ala Glu Lys Val Thr Val Ile Thr Lys His Asn Asp Asp Glu Gln Tyr
343 145          150          155          160
345 Ala Trp Glu Ser Ser Ala Gly Gly Ser Phe Thr Val Arg Thr Asp Thr
346          165          170          175
348 Gly Glu Pro Met Gly Arg Gly Thr Lys Val Ile Leu His Leu Lys Glu
349          180          185          190
351 Asp Gln Thr Glu Tyr Leu Glu Glu Arg Arg Ile Lys Glu Ile Val Lys
352          195          200          205
354 Lys His Ser Gln Phe Ile Gly Tyr Pro Ile Thr Leu Phe Val Glu Lys
355          210          215          220
357 Glu Arg Asp Lys Glu Val Ser Asp Asp Glu Ala Glu Glu Lys Glu Asp
358 225          230          235          240
360 Lys Glu Glu Glu Lys Glu Lys Glu Glu Lys Glu Ser Glu Asp Lys Pro
361          245          250          255
363 Glu Ile Glu Asp Val Gly Ser Asp Glu Glu Glu Glu Lys Lys Asp Gly

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RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/563,726

DATE: 07/31/2006
TIME: 14:24:13

Input Set : A:\PTO.KD.txt
Output Set : N:\CRF4\07312006\J563726.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220>

to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:119; Xaa Pos. 3,4,5,6,7,8,9,10,11,12,13,220,221,222,223,224,225,226
Seq#:119; Xaa Pos. 227,228,229,230,231,232,233,234,235,236,237,238,239,240
Seq#:119; Xaa Pos. 241,242,243,244,245,246,247,248,249,250,251,252,253,254
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Seq#:119; Xaa Pos. 545,546,547,548,549,550,551,552,553,554,555,556,557,558
Seq#:119; Xaa Pos. 559,560,561,562,563,564,565,566,567,568,569,570,701
Seq#:119; Xaa Pos. 702,703,704,705,706,707
Seq#:120; Xaa Pos. 227,228,229,230,231,232,233,234,235,236,237,238,239,240
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VERIFICATION SUMMARY

PATENT APPLICATION: US/10/563,726

DATE: 07/31/2006

TIME: 14:24:13

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Output Set: N:\CRF4\07312006\J563726.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application Number

L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:2450 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (73) SEQUENCE:

L:2822 M:300 W: (50) Intentionally skipped Sequence, : Sequence Id (92) SEQUENCE:

L:3380 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:119 after pos.:0

M:341 Repeated in SeqNo=119

L:3577 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:120 after pos.:224

M:341 Repeated in SeqNo=120